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National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama 35812

Issuance Number: MMI 2570.1D, Change 1

Date: January 4, 1991

Material Transmitted:

1. Management Instruction, MMI 2570.1D, Change 1, subject: Radio Frequency (RF) Assignment and Allocation.
2. Make the following pen and ink change:

Revise paragraph 5 to read: The Center Director will designate an engineer in the MSFC Systems Engineering Branch, Systems Engineering and Integration Division, Information Systems Office (ISO), as the Center Spectrum Manager. The Director of ISO will designate an alternate Center Spectrum Manager. See Attachment B for Spectrum Manager's responsibilities.

(Orig s/by)
Robert G. Sheppard
Director, Institutional
and Program Support

Distribution:
SDL-1

Filing Instructions:

Make pen and ink change and file this Transmittal Sheet in front of MMI 2570.1D.

ISSUANCE TRANSMITTAL NASA
SHEET National Aeronautics and
 Space Administration

George C. Marshall Space Flight Center
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Issuance Number: MMI 2570.1D

Date: January 9, 1990

Material Transmitted:

1. Management Instruction, MMI 2570.1D subject: Radio Frequency (RF) Assignment and Allocation.
2. This Instruction has been revised to:
 - a. Update it organizationally; and
 - b. Make other minor changes.

Filing Instructions:

Remove MMI 2570.1C and insert the attached MMI 2570.1D.

MANAGEMENT
INSTRUCTION

N A S A
National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama 35812

Originating Organization: AI01	Effective Date: January 9, 1990	MMI: 2570.1D
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SUBJECT: RADIO FREQUENCY (RF) ASSIGNMENT AND ALLOCATION

1. PURPOSE

To prescribe procedures for allocation, renewal, or modification of radio frequencies for experimental or operational use at this Center.

2. APPLICABILITY

This Instruction is applicable to all MSFC organizations and all contractors under Center jurisdiction, regardless of geographic location. Its provisions apply to:

- a. The research and development, construction, operation, and/or first production of communications and electronic devices or sub-assemblies for MSFC which radiate or reradiate RF signals and in which acquisition of functioning hardware is the principal objective;
- b. The functional modifications of such equipment which would render a previous frequency allocation inapplicable; and
- c. Acquisition of communications and electronic equipment or systems through requisition, transfer, or procurement, irrespective of the amount.

3. AUTHORITY AND REFERENCES (Only applicable parts of the most recent edition apply)

- a. NMI 2570.5, Radio Frequency Spectrum Management
- b. MMI 5101.5, Approval and Routing of Procurement Requests
- c. NHB 2570.6, NASA Radio Frequency Spectrum Management Manual
- d. Manual of Regulations and Procedures for Federal RF Management, National Telecommunications and Information Administration (NTIA)

4. POLICY

- a. All space vehicles and spacecraft under cognizance of MSFC will be equipped with reliable fail-safe devices for controlling electromagnetic transmissions. This requirement will be included as an integral part of the development and planning of the space project.
- b. The technical officer requiring research, development, components, or modifications of communication and electronic equipment or systems requiring frequency support will not initiate a requisition or procurement request for such equipment until frequency support has been established. An approved MSFC Form 1040 (RF Authorization) executed by the Center Spectrum Manager will be made a part of the specifications included with the procurement request for requisition.
- c. When a commercial contractor is employed to develop, construct, or operate a device which radiates or reradiates a radio signal, the acquired radio frequencies will be obtained through MSFC channels. Although the NASA contract itself may be written by other NASA contracting agencies, frequencies required for contracts under the direction and/or purview of MSFC will be obtained through MSFC project representative.

5. DESIGNATION OF CENTER SPECTRUM MANAGER

The Center Director will designate an engineer in the MSFC Systems Engineering Branch, Systems Engineering and Integration Division, Information Systems Office (ISO), as the Center Spectrum Manager. The Director of ISO will designate an alternate Center Spectrum Manager. See Attachment B for Spectrum Manager's responsibilities.

6. RESPONSIBILITIES

- a. Managers at all levels of Center management planning the use of, conducting experiments relating to, or developing and procuring telecommunications systems requiring the use of radio frequencies will secure the approval of the Center Spectrum Manager before initiating procurement action or budget submission.
- b. The Director, Procurement Office is responsible for assuring that no communication-electronic systems using the frequency spectrum will be procured until a signed MSFC Form 1040 provided by the MSFC Spectrum Manager is attached to the specifications.
- c. Detailed responsibilities are found in Attachment B.

7. CONDITIONS OF ASSIGNMENT

- a. All frequencies assigned through NASA channels for experimental purposes are for operation in support of Research and Development activities or assigned on a non-interference basis unless stated on the authorization.
- b. Radio transmitters will be operated by adequately trained and designated personnel, and in a manner conforming to established and accepted procedure.
- c. Transmitter operation will be conducted on authorized frequency only.
- d. Power, emission, and conditions of assignment will be adhered to at all times.
- e. All radio transmissions will be identified by the use of the authorized radio call sign.
- f. Transmitter operation will be held within prescribed tolerances unless otherwise authorized.

8. CANCELLATION

MMI 2570.1C dated June 30, 1976

(orig s/by)

T. J. Lee
Director

Attachments

- a. Definitions
- b. MSFC Spectrum Manager's Responsibilities

Distribution

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DEFINITIONS

For the purpose of this Instruction, the following definitions will apply:

- a. RF Management - is the effective allocation of the RF spectrum in order to prevent harmful interference and waste of the RF spectrum as a natural resource.
- b. RF Support - is the availability of authorized segments of the RF spectrum to accommodate the operating requirements of particular electronic equipment.
- c. RF Assignment - is an authority to operate on a particular frequency. When such a frequency is assigned, it is the license for that radio station to operate on that specific frequency.
- d. RF Allocation - is the process of setting aside a portion of the RF spectrum for a particular use or service. A Table of Frequency Allocations reflects such a division of the radio spectrum.
- e. RF Energy - is the electromagnetic energy which is radiated in the RF spectrum.
- f. RF Interference Reduction - is the capability of identifying, measuring, and locating sources of harmful electromagnetic interference.
- g. RF Scheduling Coordination - is to confine within the cognizant Test Range local assignments and interference protection as necessary with the Area Frequency Coordinator.

MSFC SPECTRUM MANAGER'S RESPONSIBILITIES

The MSFC Spectrum Manager is responsible for the following at MSFC and all NASA field sites under MSFC jurisdiction:

- a. Coordinating all of the RF spectrum requirements pertaining to activities and projects involving MSFC with the NASA Spectrum Management Program Office.
- b. Maintaining an accurate data base of the status of all RF spectrum assignments in use at MSFC, including:
 - (1) Deleting the requirements no longer required,
 - (2) Modifying assignments as necessary, and
 - (3) Reviewing all assignments at least every five years from the date of original assignment.
- c. Assuring day-to-day interference-free operation at MSFC and incident reporting to the NASA Spectrum Management Program Office.
- d. Assuring that communications and RF spectrum requirements for future missions are identified as early as possible and reported to NASA Spectrum Management Program Office for inclusion in the NASA long range spectrum forecasts.
- e. Participating in local and national frequency management coordination groups, as appropriate, to provide representation and cognizance of MSFC's communications requirements.

